What is claimed is:

1. A degradation determining system for an exhaust gas sensor, for determining degradation of the exhaust gas sensor based on an output from the exhaust gas sensor, the exhaust gas sensor outputting a signal indicative of an amount of a predetermined component contained in exhaust gases emitted from an internal combustion engine into an exhaust passage thereof,

the degradation determining system comprising:

determining input-generating means for generating a determining input for determining degradation of the exhaust gas sensor;

modulation output-generating means for generating a modulation output by modulating the generated determining input, using any one of a $\Delta\Sigma$ modulation algorithm, a $\Sigma\Delta$ modulation algorithm, and a Δ modulation algorithm;

control means for controlling an amount of fuel to be injected into the engine, according to the generated modulation output; and

degradation determining means for determining degradation of the exhaust gas sensor based on the output from the exhaust gas sensor delivered when the amount of fuel to be injected is controlled by said control means.

2. A degradation determining system as claimed in claim 1, further comprising a bandpass filter for filtering the output from the exhaust gas sensor input thereto, such that components of the output from the exhaust gas sensor corresponding to a predetermined frequency band including a frequency of the determining input are allowed to pass therethrough, and

wherein said degradation determining means determines degradation of the exhaust gas sensor based on the output of the exhaust gas sensor, the output having been filtered by said bandpass filter.

3. A degradation determining system as claimed in claim 1, wherein said degradation determining means determines degradation of the exhaust gas sensor based on the output from the exhaust gas sensor, after a predetermined time period has elapsed from a start of control of the amount of fuel to be injected by said control means.

4. A degradation determining system as claimed in claim 1, wherein said degradation determining means determines degradation of the exhaust gas sensor based on a state of changes in amplitude of the output from the exhaust gas sensor.

5. A degradation determining system as claimed in claim 1, further comprising cumulative value-generating means for generating a cumulative value by adding up a plurality of values of the output from the exhaust gas sensor delivered at respective different times, and

wherein said degradation determining means determines degradation of the exhaust gas sensor based on the generated cumulative value.

6. A degradation determining system as claimed in claim 1, wherein said control means controls the amount of fuel to be injected according to a value obtained by adding together the modulation output generated by said modulation output-generating means and a predetermined value.

7. A degradation determining system as claimed in claim 1, wherein the exhaust gas sensor is an air-fuel ratio sensor that outputs a signal indicative of a

sensed concentration of oxygen contained in the exhaust gases, and

wherein the degradation determining system further comprises correction means for correcting the amount of fuel to be injected in response to the output from the air-fuel ratio sensor.

8. A degradation determining method of determining degradation of an exhaust gas sensor based on an output from the exhaust gas sensor, the exhaust gas sensor outputting a signal indicative of an amount of a predetermined component contained in exhaust gases emitted from an internal combustion engine into an exhaust passage thereof,

the degradation determining method comprising the steps of:

generating a determining input for determining degradation of the exhaust gas sensor;

generating a modulation output by modulating the generated determining input, using any one of a $\Delta\Sigma$ modulation algorithm, a $\Sigma\Delta$ modulation algorithm, and a Δ modulation algorithm;

controlling an amount of fuel to be injected into the engine, according to the generated modulation output; and

determining degradation of the exhaust gas sensor based on the output from the exhaust gas sensor delivered when the amount of fuel to be injected is controlled in said controlling step.

9. A degradation determining method as claimed in claim 8, further comprising the step of inputting the output from the exhaust gas sensor to a bandpass filter to thereby perform filtering such that components of the output from the exhaust gas sensor corresponding to a

predetermined frequency band including a frequency of the determining input are allowed to pass therethrough, and

wherein said degradation determining step includes determining degradation of the exhaust gas sensor based on the output of the exhaust gas sensor, the output having been filtered by said bandpass filter.

10. A degradation determining method as claimed in claim 8, wherein said degradation determining step includes determining degradation of the exhaust gas sensor based on the output from the exhaust gas sensor, after a predetermined time period has elapsed from a start of control of the amount of fuel to be injected in said controlling step.

11. A degradation determining method as claimed in claim 8, wherein said degradation determining step includes determining degradation of the exhaust gas sensor based on a state of changes in amplitude of the output from the exhaust gas sensor.

12. A degradation determining method as claimed in claim 8, further comprising the step of generating a cumulative value by adding up a plurality of values of the output from the exhaust gas sensor delivered at respective different times, and

wherein said degradation determining step includes determining degradation of the exhaust gas sensor based on the generated cumulative value.

13. A degradation determining method as claimed in claim 8, wherein said controlling step includes controlling the amount of fuel to be injected according to a value obtained by adding together the modulation output generated in said modulation output-generating step and a predetermined value.

14. A degradation determining method as claimed in claim 8, wherein the exhaust gas sensor is an air-fuel ratio sensor that outputs a signal indicative of a sensed concentration of oxygen contained in the exhaust gases, and

wherein the degradation determining method further includes the step of correcting the amount of fuel to be injected in response to the output from the air-fuel ratio sensor.

15. An engine control unit including a control program for causing a computer to perform a degradation determining process for determining degradation of an exhaust gas sensor based on an output from the exhaust gas sensor, the exhaust gas sensor outputting a signal indicative of an amount of a predetermined component contained in exhaust gases emitted from an internal combustion engine into an exhaust passage thereof,

wherein the program causes the computer to generate a determining input for determining degradation of the exhaust gas sensor, generate a modulation output by modulating the generated determining input, using any one of a $\Delta\Sigma$ modulation algorithm, a $\Sigma\Delta$ modulation algorithm, and a Δ modulation algorithm, control an amount of fuel to be injected into the engine, according to the generated modulation output, and determine degradation of the exhaust gas sensor based on the output from the exhaust gas sensor delivered when the program causes the computer to control the amount of fuel to be injected based on the generated modulation output.

16. An engine control unit as claimed in claim 15, wherein the program causes the computer to input the output from the exhaust gas sensor to a bandpass filter

to thereby cause the bandpass filter to perform
filtering such that components of the output from the
exhaust gas sensor corresponding to a predetermined
frequency band including a frequency of the determining
input are allowed to pass through the bandpass filter,
and

wherein when the program causes the computer to
determine degradation of the exhaust gas sensor, the
program causes the computer to determine degradation of
the exhaust gas sensor based on the output of the
exhaust gas sensor, the output having been filtered by
said bandpass filter.

17. An engine control unit as claimed in claim 15,
wherein when the program causes the computer to
determine degradation of the exhaust gas sensor, the
program causes the computer to determine degradation of
the exhaust gas sensor based on the output from the
exhaust gas sensor, after a predetermined time period
has elapsed from a start of control of the amount of
fuel to be injected based on the generated modulation
output.

18. An engine control unit as claimed in claim 15,
wherein when the program causes the computer to
determine degradation of the exhaust gas sensor, the
program causes the computer to determine degradation of
the exhaust gas sensor based on a state of changes in
amplitude of the output from the exhaust gas sensor.

19. An engine control unit as claimed in claim 15,
wherein the program causes the computer to generate a
cumulative value by adding up a plurality of values of
the output from the exhaust gas sensor delivered at
respective different times, and wherein when the program
causes the computer to determine degradation of the

exhaust gas sensor, the program causes the computer to determine degradation of the exhaust gas sensor based on the generated cumulative value.

20. An engine control unit as claimed in claim 15, wherein when the program causes the computer to control the amount of fuel to be injected based on the generated modulation output, the program causes the computer to control the amount of fuel to be injected according to a value obtained by adding together the modulation output and a predetermined value.

21. An engine control unit as claimed in claim 15, wherein the exhaust gas sensor is an air-fuel ratio sensor that outputs a signal indicative of a sensed concentration of oxygen contained in the exhaust gases, and

wherein the program causes the computer to correct the amount of fuel to be injected in response to the output from the air-fuel ratio sensor.